

REMARKS

The present remarks are in response to the Office Action of September 12, 2005. Claims 11, 12, and 24-26 are currently pending.

Reconsideration of the application is respectfully requested in view of the following responsive remarks. For the Examiner's convenience and reference, the Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

In the Office Action, the following rejections were made:

- (1) claims 11-12, and 24-26 were rejected under 35 U.S.C. 112, first paragraph, as allegedly lacking enablement;
- (2) claims 24 and 26 were rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement; and
- (3) claims 11-12, and 24-26 were rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Pat. No. 4,795,794 (hereinafter "Winnik").

Rejections under 35 U.S.C. 112, first paragraph

The Examiner has rejected claims 11-12, and 24-26 under 35 U.S.C. 112, first paragraph, because the specification allegedly does not reasonably provide enablement for the claimed genus of "an unsaturated monomer containing a hydrophobic moiety" and "an unsaturated monomer containing a convertible moiety in a hydrophobic form." Applicant respectfully disagrees with this rejection. The CAFC has made it clear that a description of a genus may be achieved by reciting "a representative number" of species or a recitation of structural features common to members of the genus. See *Regents of the Univ. of Cal. V. Eli Lilly and Co.*, 119 F.3rd 1559, 1569. The CAFC has also indicated that it may not be necessary to enumerate a plurality of species if a genus is sufficiently identified in an application by other appropriate language. *Ibid*.

Regarding the description of hydrophobic moieties of monomers, page 5 of the specification lists approximately 6 categories of hydrophobic monomers and 5 specific hydrophobic monomers. It is the Applicant's position that, given this recitation of hydrophobic monomers, the specification would adequately teach one of ordinary skill in the art to make and use the invention regarding hydrophobic monomers, and that such a genus has been adequately described.

Regarding the description of convertible moieties of monomers in a hydrophobic form, page 5 of the specification lists 6 specific convertible monomers. Additionally, page 4 of the specification states that the term "convertible monomer" refers to monomers with long side chain acid groups, and that the convertible monomers are water insoluble in the monomer form. Furthermore, after polymerization, the acid group side chain of the convertible monomers can be converted to anionic salts by adjusting pH of the solution to a basic range. It is the Applicant's position that, in accord with the CAFC's decision, the listing of specific convertible monomers amounts to a reciting of "a representative number," and that the description of the long side chain acid groups of the convertible monomers amounts to a recitation of structural features common to members of the genus. As such, sufficient description has been provided in the specification to teach one of ordinary skill in the art to make and use the present invention regarding convertible

monomers, and that such a genus has been adequately described. Accordingly, the Applicant respectfully requests that this rejection be withdrawn.

The Examiner has also rejected claims 24 and 26 under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement. This rejection was previously addressed in the communication filed on June 13, 2005. As that portion of the communication relating to this rejection has not been commented on by the Examiner, it has been reproduced hereafter for the Examiner's convenience. The Examiner has stated that the limitations of claims 24 and 26, namely that the convertible moiety of the particles is in hydrophilic or in a hydrophobic form in the ink composition, are not supported by the instant specification. The Applicant respectfully disagrees with this assertion. Claim 24 imposes a limitation on claim 11 that the convertible moiety of the amphipathic polymer particles be in a hydrophilic form in the ink composition. Claim 26 imposes a similar limitation on claim 12. Support for these amendments can be found, *inter alia*, on page 6, lines 15-25 of the application as filed. This paragraph of the specification discloses that, after polymerization, the acid group side chains of the convertible monomers may be converted to anionic salt form by adjusting the pH of the solution (lines 22-24). This passage clearly describes the conversion of the convertible moiety of the amphipathic particles from a hydrophobic state to a hydrophilic state, thus describing such a particle in a hydrophilic form. Furthermore, page 2, lines 22-33 describe the amphipathic polymeric particles as being "ideal for inclusion in any ink marketed for ink jet printers," thus providing one skilled in the art with the understanding that the convertible moiety of the amphipathic particles can be in a hydrophilic form and included in an ink composition. Page 10, lines 8-10 also provides support for the inclusion of the amphipathic polymeric particles (the polymeric dispersant/binder) produced by side chain conversion into an ink composition. As such, the Applicant respectfully requests that this rejection be withdrawn.

Rejections under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) in the alternative

Before discussing the rejections under 35 U.S.C. 102(b), it is thought proper to briefly state what is required to sustain such a rejection. It is well settled that "[a] claim is anticipated only if each and every element as set forth in the claims is found,

either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987). In order to establish anticipation under 35 U.S.C. §102, all elements of the claim must be found in a single reference. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986), *cert. denied* 107 S.Ct. 1606 (1987). In particular, as pointed out by the court in *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1981), *cert denied*, 469 U.S. 851 (1984), "anticipation requires that each and every element of the claimed invention be disclosed in a prior art reference." "The identical invention must be shown in as complete detail as is contained in the...claim." *Richardson v. Suzuki Motor Co.* 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

Additionally, before discussing the obviousness rejection herein, it is thought proper to briefly state what is required to sustain such a rejection. The issue under § 103 is whether the PTO has stated a case of *prima facie* obviousness. According to the MPEP § 2142, the Examiner has the burden and must establish a case of *prima facie* obviousness by showing some motivation in a prior art reference to modify that reference, or combine that reference with multiple references, to teach all the claim limitations in the instant application. Applicants respectfully assert the Examiner has not satisfied the requirement for establishing a case of *prima facie* obviousness in this rejection.

Rejections over Winnik

Rejection of claim 11

The Examiner has rejected claims 11, 12, and 24-26 under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Winnik. The Examiner argues that arguments or consolatory remarks cannot take the place of evidence, and that side-by-side comparative data is required to support the asserted differences between the prior art and claim 11. The Applicant asserts that the Examiner has not shown that Winnik teaches each and every element of claim 11. For example, claim 11 contains a limitation that the a convertible moiety of an unsaturated monomer. As has been discussed above, the specification states that a convertible monomer has long side chain acid groups. In the previous office action, the Examiner held that Winnik taught butyl methacrylate as a convertible

monomer. Such a monomer does not, however, represent a convertible moiety as required by claim 11 because, *inter alia*, it does not contain a long side chain acid group. Because Winnik does not teach one of the required components of claim 11, the resulting product would necessarily be different. The burden is still on the Examiner to show where Winnik teaches the preparation of amphipathic polymer particles comprised of unsaturated hydrophobic monomers and unsaturated convertible monomers.

Additionally, as was discussed in the response to the previous Office Action, Winnik teaches the preparation of dye particles wherein the dye is covalently attached to a polymer backbone (col 4, lines 40-42). Claim 11 requires that the ink composition comprise a pigment colorant. Nowhere does Winnik teach or suggest the use of pigment colorants as required by claim 11. As the Examiner is aware, dyes and pigments are completely different classes of colorant molecules. Many pigments are orders of magnitude larger than dyes, and they often have very different solubilities. The Examiner argues that the Applicants arguments are not compelling because Winnik teaches the mixture of colored particles and a solvent medium. Such a mixture of colored particles are comprised not of pigment colorants as required by claim 11, but dye colorants and would thus be very different from the amphipathic polymer particles of claim 11.

Winnik also teaches that the dye molecule is immobilized by covalently attachment to the polymer backbone in order to prevents toxicological problems (col 6, lines 46-51). The pigment colorants of claim 11 do not require such a covalent attachment due to the physical differences between pigments and dyes.

As such, the Applicant respectfully requests that the 102(b) rejections of claim 11 be withdrawn because Winnik does not teach each and every element of that claim. Additionally, it is requested that the 103(a) rejections be withdrawn as nothing in Winnik would make obvious to one of ordinary skill in the art the use of convertible moiety monomers with pigment colorants. It is also requested that the rejections to claims 24 and 25 be withdrawn, as these claims depend from claim 11 and are thus deemed to be narrower in scope.

Rejection of claim 12

Due to the similarities between claim 11 and claim 12, the same arguments given in the discussion of claim 11 apply to claim 12. The Applicant respectfully requests that the 102(b) and 103(a) rejections be withdrawn for the reasons noted above. It is also requested that the rejections to claim 26 be withdrawn, as this claim depends from claim 12 and is thus deemed to be narrower in scope.

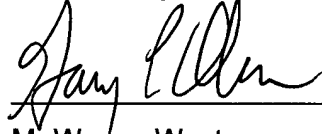
CONCLUSION

In view of the foregoing, Applicant believes that claims 11, 12, and 24-26 present allowable subject matter and allowance is respectfully requested. If any impediment to the allowance of these claims remains after consideration of the above remarks, and such impediment could be removed during a telephone interview, the Examiner is invited to telephone Susan E. Heminger at (650) 236-2738 so that such issues may be resolved as expeditiously as possible.

Please charge any additional fees except for Issue Fee or credit any overpayment to Deposit Account No. 08-2025.

Dated this 12th day of December, 2005.

Respectfully submitted,



M. Wayne Western
Attorney for Applicant
Registration No. 22,788

Gary P. Oakeson
Attorney for Applicant
Registration No. 44,266

Of:

THORPE NORTH & WESTERN, LLP
8180 South 700 East, Suite 200
Sandy, Utah 84070
(801) 566-6633

On Behalf Of:

HEWLETT-PACKARD COMPANY
1501 Page Mill Road
Mailstop 1197
Palo Alto, CA 94304-1126
(650) 852-8063